

### **ABSTRACT**

The present invention concerns a method of monitoring traffic in a network in which a plurality of nodes 2A, 2B, 2C, 2D access a common resource 3 such as a wavelength in an optical network. It consists in, in each node: detecting if said resource is being used to send data or if it is not being used for long enough to send a data packet and then, if it is not being used for long enough to send a data packet, prohibiting the node (2B) concerned from sending data in a portion of said resource (3) that is determined statistically as a function of the requirements for use of said resource by all of the nodes (2C, 2D) on the downstream side of the node (2B) concerned.

**Figure to be published : Figure 1**